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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,026	01/16/2001	Ian Redmond	M-8535-2P US	8054

32605 7590 02/26/2004

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EXAMINER

BATTAGLIA, MICHAEL V

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 02/26/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 09/764,026	Applicant(s) REDMOND ET AL. S	
	Examiner Michael V Battaglia	Art Unit 2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 8-12 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) 4-7, 13-15, 21 and 22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-3, 8-12 and 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>Z</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action, dated February 20, 2004, is in response to the applicant's election, filed January 26, 2004. Claims 1-3, 8-12, and 16-20 are pending.

Election/Restrictions

1. Applicant's election without traverse of Group I in Paper No. 14 is acknowledged. Claims 4-7, 13-15, and 21-22 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to the nonelected Group II, there being no allowable generic or linking claim.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 12 is rejected as an improper dependent claim. The examiner will consider claim 12 as dependent on claim 8 in the prior art rejections below.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 8-12, and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim (US 5,995,476).

In regard to claim 1, Kim discloses a method for providing an optical head in a read/write device comprising: positioning a light source (Fig. 1, element 12) with respect to an optical head substrate (Fig. 1, element 2); positioning at least a first optical element (Fig. 1, element 15) along an optical path from said light source to an objective (Fig. 1, element 16), wherein said optical path defines at least a farthest virtual source point (Fig. 1); providing at least a first beamshaper in said optical path (Fig. 1, element 14 and Col. 1, lines 39-42), wherein a farthest virtual source point of said optical path after said first beamshaper is provided is substantially the same as said farthest virtual source point before said first beamshaper is provided (Fig. 1). The examiner notes that the farthest position of a virtual point source of the optical path is the same whether or not the first beamshaper is provided.

In regard to claim 2, Kim discloses that said beamshaper and said first optical element are positioned on a single integral optical element unit (Fig. 1, element 10).

In regard to claim 3, Kim discloses that said first optical element is a non-beamshaper element (Fig. 1, element 15 and Col. 1, lines 35-38).

In regard to claim 8, Kim discloses an optical head apparatus for use in a read/write device comprising: an optical head substrate (Fig. 1, element 2); a light source positioned with respect to said optical head substrate (Fig. 1, element 12); a first optical element (Fig. 1, element 15) positioned along an optical path from said light source to an objective (Fig. 1, element 16); a second optical element in said optical path (Fig. 1, element 14), wherein a first optical parameter of said optical path when said second optical element is provided is substantially the same as said first optical parameter before said second optical element is provided (Fig. 1). The examiner interprets the first optical parameter to be a farthest position of a virtual point source of the optical path, which is the same whether or not the second optical element is provided.

In regard to claim 9, Kim discloses that said second optical element is a beamshaper (Fig. 1, element 14 and Col. 1, lines 39-42).

In regard to claim 10, Kim discloses that said first optical parameter is a farthest position of a virtual point source of said optical path (Fig. 1).

In regard to claim 11, Kim discloses that said beamshaper and said first optical element are positioned on a single integral optical element unit (Fig. 1, element 10).

In regard to claim 12, Kim discloses that said first optical element is a non-beamshaper element (Fig. 1, element 15 and Col. 1, lines 35-38).

In regard to claim 16, Kim discloses an optical head apparatus for use in a read/write device comprising: an optical head substrate (Fig. 1, element 2); a light source means for outputting light, positioned with respect to said optical head substrate (Fig. 1, element 12); a first optical means for modifying said light (Fig. 1, element 15), positioned along an optical path from said light

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source means to an objective means (Fig. 1, element 16); a second optical means for modifying said light, said second optical means positioned in said optical path (Fig. 1, element 14), wherein a value of a first optical parameter of said optical path when said second optical means is provided is substantially the same as a value of said first optical parameter before said second optical means is provided (Fig. 1). The examiner interprets the first optical parameter to be a farthest position of a virtual point source of the optical path, which is the same whether or not the second optical means is provided.

In regard to claim 17, Kim discloses that said second optical means is a beamshaper (Fig. 1, element 14 and Col. 1, lines 39-42).

In regard to claim 18, Kim discloses that said first optical parameter is a farthest position of a virtual point source of said optical path (Fig. 1).

In regard to claim 19, Kim discloses that said first optical means and said second optical means are positioned on a single integral optical element unit (Fig. 1, element 10).

In regard to claim 20, Kim discloses that said first optical means is a non-beamshaper element (Fig. 1, element 15 and Col. 1, lines 35-38).

5. Claims 1, 3, 8-10, 12, 16-18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al (hereafter Lee) (US 6,359,845).

In regard to claim 1, Lee discloses a method for providing an optical head in a read/write device comprising: positioning a light source (Fig. 8, element 11) with respect to an optical head substrate (Fig. 8, unlabeled element below light source); positioning at least a first optical element (Fig. 8, element 15) along an optical path from said light source to an objective (Fig. 7, element 16), wherein said optical path defines at least a farthest virtual source point (Fig. 7); providing at least a first beamshaper in said optical path (Fig. 7, element 14), wherein a farthest virtual source point of

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said optical path after said first beamshaper is provided is substantially the same as said farthest virtual source point before said first beamshaper is provided (Fig. 7). The examiner interprets the substrate or underlying layer below the light source (Fig. 8, element 11) in the second hologram unit (Fig. 7, element 20) as an optical head substrate because the substrate is part of the optical head. The examiner notes that the farthest position of a virtual point source of the optical path is the same whether or not the first beamshaper is provided because the first beamshaper (Fig. 7, element 14) diverges the optical path.

In regard to claim 3, Lee discloses that said first optical element is a non-beamshaper element (Fig. 8, element 15).

In regard to claim 8, Lee discloses an optical head apparatus for use in a read/write device comprising: an optical head substrate (Fig. 8, unlabeled element below element 11); a light source positioned with respect to said optical head substrate (Fig. 8, element 11); a first optical element (Fig. 8, element 15) positioned along an optical path from said light source to an objective (Fig. 7, element 16); a second optical element in said optical path (Fig. 7, element 14), wherein a first optical parameter of said optical path when said second optical element is provided is substantially the same as said first optical parameter before said second optical element is provided (Fig. 7). The examiner interprets the substrate or underlying layer below the light source (Fig. 8, element 11) in the second hologram unit (Fig. 7, element 20) as an optical head substrate because the substrate is part of the optical head. The examiner interprets the first optical parameter to be a farthest position of a virtual point source of the optical path, which is the same whether or not the second optical element is provided because the second optical element (Fig. 7, element 14) diverges the optical path.

In regard to claim 9, Lee discloses that said second optical element is a beamshaper (Fig. 7, element 14).

In regard to claim 10, Lee discloses that said first optical parameter is a farthest position of a virtual point source of said optical path (Fig. 7).

In regard to claim 12, Lee discloses that said first optical element is a non-beamshaper element (Fig. 8, element 15; Col. 5, lines 60-62; and Col. 6, lines 21-24).

In regard to claim 16, Lee discloses an optical head apparatus for use in a read/write device comprising: an optical head substrate (Fig. 8, unlabeled element below element 11); a light source means for outputting light, positioned with respect to said optical head substrate (Fig. 8, element 11); a first optical means for modifying said light (Fig. 8, element 15), positioned along an optical path from said light source means to an objective means (Fig. 7, element 16); a second optical means for modifying said light, said second optical means positioned in said optical path (Fig. 7, element 14), wherein a value of a first optical parameter of said optical path when said second optical means is provided is substantially the same as a value of said first optical parameter before said second optical means is provided (Fig. 7). The examiner interprets the substrate or underlying layer below the light source (Fig. 8, element 11) in the second hologram unit (Fig. 7, element 20) as an optical head substrate because the substrate is part of the optical head. The examiner interprets the first optical parameter to be a farthest position of a virtual point source of the optical path, which is the same whether or not the second optical means is provided because the second optical means (Fig. 7, element 14) diverges the optical path.

In regard to claim 17, Lee discloses that said second optical means is a beamshaper (Fig. 7, element 14).

In regard to claim 18, Lee discloses that said first optical parameter is a farthest position of a virtual point source of said optical path (Fig. 7).

In regard to claim 20, Lee discloses that said first optical means is a non-beamshaper element (Fig. 8, element 15; Col. 5, lines 60-63; and Col. 6, lines 21-24).

Citation of Relevant Prior Art

6. Kyoya et al (US 6,664,998) and Kuono (US 6,404,709) disclose optical elements positioned in a single integral optical element unit. Shih (US 6,577,376) (Fig. 13, element 15), Ohnishi et al (US 4,768,183) (Fig. 1A, element 8), and Yamanaka (US 5,923,635) (Fig. 1, element 2) disclose optical beam shaping elements that diverge light and therefor do not change a farthest position of a virtual point source of said optical path. Takeda et al (US 6,552,317) disclose a light source positioned on an optical head substrate that emits light on an optical path through optical elements that do not change a farthest position of a virtual point source of said optical path (Fig. 2).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V Battaglia whose telephone number is (703) 305-4534. The examiner can normally be reached on 5-4/9 Plan with 1st Friday off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T Nguyen can be reached on (703) 305-9687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Michael Battaglia


THANG V. TRAN
PRIMARY EXAMINER